

AMENDMENT TO THE ABSTRACT

The abstract is objected to because it exceeds 150 words in length. Please amend the abstract as follows:

~~Large payload Files are selectively partitioned in blocks and the blocks distributed to a plurality of distribution stations at the edge of the network qualified to have the data. Each qualified station decides how much and what portion of the content to save locally, based on information such as network location, and environment, usage, popularity, and other distribution criteria defined by the content provider. Different Pieces of a large payload file may be available from different nodes, however, when a user requests access to the large payload file, for example, through an application server, a virtual file control system creates an illusion that the entire file is present at the connected node. However, Since only selective portions of the large payload file may actually be resident at that node's storage at the time of request, a cluster of distribution servers at the distribution station may download the non-resident portions of the file as the application server is servicing the user. The Download may be in parallel and usually from the least congested nodes. New nodes added to the download the required content, in a desired amount, onto their local storage devices from the nearest, and least congested nodes, without interrupting network operation. Each node manages its local storage and decides what content to prune based on information such as usage patterns.~~

A method for initializing a new node in a network. The network has multiple nodes arranged in a virtual tree format. The new node is a node of the tree, and each node of the tree has a set of attributes and a set of rolled up attributes to identify each node. A query is automatically sent to the nodes to determine what contents to download. The contents are

then stored as block files in the nodes. The query contains the set of attributes and rolled up attributes for the new node. The query receives replies from a subset of the nodes that have the contents needed for the new node. Each reply identifies what subset of the block files is available and the performance characteristics of that replying node. Then the desired contents from the subset of the block files from nodes that are least congested is downloaded.